INTERNATIONAL TELECOMMUNICATION UNION

WRC-2000 WORLD RADIOCOMMUNICATION CONFERENCE

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ISTANBUL, 8 MAY – 2 JUNE 2000

PLENARY MEETING

United States of America

PROPOSALS FOR THE WORK OF THE CONFERENCE

Proposal for agenda item 1.11 - to consider constraints on existing allocations and to consider additional allocations on a worldwide basis for the non-geostationary (non-GSO) MSS below 1 GHz, taking into account the results of ITU-R studies conducted in response to Resolutions 214 (Rev.WRC-97) and 219 (WRC-97)

MODIFICATION OF RESOLUTION 214 (Rev.WRC-97)

Sharing studies relating to consideration of the allocation of bands below 1 GHz to the non-geostationary mobile-satellite service

Background information

The CPM Report to WRC-2000 indicates a requirement of 7 to 17 MHz of additional spectrum required for service links in the non-geostationary mobile-satellite service (non-GSO MSS) below 1 GHz. Additionally, 4 MHz of shared spectrum is identified as the required spectrum for MSS feeder links. These requirements will not likely be met by additional allocations to the non-GSO MSS at WRC-2000. Thus, there remains an urgent need for usable spectrum to be made available on a worldwide basis for non-GSO MSS systems operating below 1 GHz.

In response to Resolution 214 (Rev.WRC-97), ITU-R studies have shown that for specific cases, co-frequency sharing between the non-GSO MSS and the existing services below 1 GHz may be achieved. However, other cases have not been taken into account. Consequently, the operational and technical means to facilitate sharing have not been studied for some systems operating in some parts of the world.

The continued study and development of Recommendations by ITU-R on the performance requirements, sharing criteria and the technical and operational issues relating to sharing between the existing services and non-GSO MSS below 1 GHz can provide the technical basis for consideration at WRC-03 of additional allocations on a worldwide basis for the non-GSO MSS below 1 GHz. Therefore, the United States proposes the continuance of Resolution 214 as modified by this proposal.

Consideration of the technical and regulatory constraints on non-GSO MSS allocations in the bands below 1 GHz was addressed by WRC-2000. Therefore, that aspect is proposed for deletion from Resolution 214.

It is proposed to modify Resolution 214 (Rev.WRC-97):

1) to invite continued ITU-R study of the technical and operational measures to facilitate sharing between the non-GSO MSS and existing services below 1 GHz;

2) to invite WRC-03 consideration of additional allocations to the non-GSO MSS below 1 GHz;

3) to delete from Resolution 214 the consideration of technical and regulatory constraints on the non-GSO MSS allocations in the bands below 1 GHz, which was addressed by WRC-2000.

MOD USA/12/257

RESOLUTION 214 (Rev.WRC-97)

Sharing studies relating to consideration of the allocation of bands below 1 GHz to the non-geostationary mobile-satellite service

The World Radiocommunication Conference (~~Geneva, 1997~~Istanbul, 2000),

considering

a) that the agenda of this Conference included consideration of additional allocations on a worldwide basis for the non-geostationary mobile-satellite service (non-GSO MSS) below 1 GHz;

b) that the 199~~7~~9 Conference Preparatory Meeting, in its Report, indicated that for the non-GSO MSS below 1 GHz there is not enough spectrum currently allocated to allow development of all the systems currently in coordination, and that, in order to meet projected MSS requirements below 1 GHz, a range of an additional 7 to 10 MHz will be required in the near future although, as well, it recognized that a number of these systems may not be implemented for reasons not connected with spectrum availability;

Reasons: Editorial.

c) that there is an urgent need to make usable spectrum available on a worldwide basis for non-GSO MSS systems operating below 1 GHz;

d) that some non-GSO MSS systems are already operated by some administrations in existing MSS allocations and are at an advanced stage of consideration for operation in many other administrations, and that studies have been conducted within ITU-R on sharing between non-GSO MSS and certain terrestrial services which demonstrate the feasibility of sharing in the cases studied;

e) that issues concerning the technical and operational means to facilitate sharing between the terrestrial services and non-GSO MSS in the bands below 1 GHz remain to be studied;

f) that the requirements for the introduction of these new technologies have to be balanced with the needs of other services having allocations below 1 GHz;

g) that the bands below 1 GHz are extensively used by administrations for many services, although the extent to which they are used by each administration varies throughout the world,

noting

MOD USA/12/258

a) that additional studies may identify ~~other~~suitable bands below 1 GHz ~~which could also~~and appropriate sharing techniques to be considered ~~suitable~~ for ~~a~~ worldwide allocations to non-GSO MSS;

SUP USA/12/259

b)

MOD USA/12/260

~~*c*~~*b)* that constraints on the duration of any single transmission from an individual MSS mobile earth station and constraints on the period between consecutive transmissions from an individual MSS mobile earth station operating on the same frequency may facilitate sharing with terrestrial services;

MOD USA/12/261

~~*d*~~*c)* that interference mitigation techniques, such as the dynamic channel activity assignment system described in Recommendation ITU-R M.1039~~-1~~, may be used by non-GSO MSS systems below 1 GHz in the Earth-to-space direction to promote compatibility with terrestrial systems when operating in the same frequency band;

MOD USA/12/262

~~*e*~~*d)* that new technologies employed by some radiocommunication services, especially within the terrestrial mobile and broadcasting services, which require spectrum below 1 GHz, may have an impact on the sharing possibilities;

ADD USA/12/263

e) that substantial progress has been made by the completion of ITU-R studies to date of sharing between the non-GSO MSS below 1 GHz and existing specific services, however, studies on some important issues remain to be completed;

MOD USA/12/264

f) that non-GSO MSS systems operating below 1 GHz have undergone advance publication by the Radiocommunication Bureau and that administrations may seek to implement further such systems~~;~~,

SUP USA/12/265

g)

resolves

1 that further studies are urgently required on operational and technical means to facilitate sharing between the non-GSO MSS and other radiocommunication services having allocations and operating below 1 GHz;

MOD USA/12/266

2 that WRC-~~99~~03 be invited to consider, on the basis of the results of the studies conducted within ITU-R and the studies referred to in *resolves* 1 above, additional allocations on a worldwide basis for the non-GSO MSS below 1 GHz;

MOD USA/12/267

3 that relevant entities and organizations be invited to participate in these sharing studies~~;~~,

SUP USA/12/268

4

invites ITU-R

MOD USA/12/269

1 to study and develop Recommendations on, as a matter of urgency, the performance requirements, sharing criteria and technical and operational issues relating to sharing between ~~both~~ existing ~~and planned~~ services and non-GSO MSS below 1 GHz;

SUP USA/12/270

2

MOD USA/12/271

~~3~~2 as a matter of urgency, to carry out studies in preparation for WRC-~~99~~03 with respect to interference mitigation techniques, such as the dynamic channel activity assignment system described in Recommendation ITU-R M.1039~~-1~~, necessary to permit the continued development of all of the services to which the bands are allocated;

SUP USA/12/272

4

MOD USA/12/273

~~5~~3 to bring the results of these studies to the attention of WRC-~~99~~03 and the relevant preparatory meetings,

urges administrations

1 to participate actively in these studies, with the involvement of both terrestrial and satellite interests;

2 to submit to ITU-R reports on their technical studies and on their operational and frequency sharing experience with non-GSO MSS systems operating below 1 GHz,

encourages administrations

MOD USA/12/274

to consider the use of dynamic channel assignment techniques, such as those described in Recommendation ITU-R M.1039~~-1~~.

Reasons: There remains an urgent need for usable spectrum to be made available on a worldwide basis for non-GSO MSS systems operating below 1 GHz. Requirements have been identified for 7 to 17 MHz of additional spectrum for service links in the non-GSO MSS below 1 GHz and an additional 4 MHz for MSS feeder links.

The continued study and development of Recommendations by ITU-R on the performance requirements, sharing criteria and the technical and operational issues relating to sharing between the existing services and non-GSO MSS below 1 GHz can provide the technical basis for consideration at WRC-03 of additional allocations on a worldwide basis for the non-GSO MSS below 1 GHz. Therefore, the United States proposes the continuance of Resolution 214 as modified by this proposal.